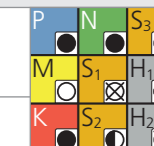
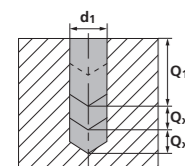
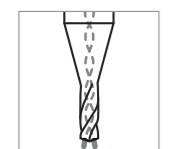


CrazyDrill Cool XL 40 x d

RECOMMENDATION FOR USE
● Excellent | ● Good | ○ Acceptable | ⊗ Not recommended



DRILLING WITH INTERNAL COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	v _c [m/min]	Q ₁	Q ₂	f [mm/rev]					
								2.0 mm f	2.5 mm 3/32" f	3.0 mm 1/8" f	4.0 mm 5/32" f	5.0 mm 3/16" - 7/32" f	6.0 mm f
P	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010	50-100	40xd1	-	0.060	0.080	0.090	0.120	0.140	0.160
		1.0401	C15	AISI 1015									
		1.1191	C45E/CK45	AISI 1045									
		1.0044	S275JR	AISI 1020									
		1.0715	11SMn30	AISI 1215									
		1.5752	15NiCr13	ASTM 3415 / AISI 3310									
	Low alloyed steel Rm > 900 N/mm²	1.7131	16MnCr5	AISI 5115	50-100	40xd1	-	0.060	0.080	0.090	0.120	0.140	0.160
		1.3505	100Cr6	AISI 52100									
		1.7225	42CrMo4	AISI 4140									
		1.2842	90MnCrV8	AISI O2									
		1.2379	X153CrMoV12	AISI D2									
		1.2436	X210CrW12	AISI D4/D6									
M	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000	30-60	40xd1	-	0.060	0.070	0.100	0.120	0.150	0.180
		1.4105	X6CrMoS17	AISI 430F									
		1.4034	X46Cr13	AISI 420C									
		1.4112	X90CrMoV18	AISI 440B									
		1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH									
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH									
	Stainless steel martensitic	1.4301	X5CrNi 18-10	AISI 304	30-60	5xd1	2xd1	0.060	0.070	0.100	0.120	0.150	0.180
		1.4435	X2CrNiMo 18-14-3	AISI 316L									
		1.4441	X2CrNiMo 18-15-3	AISI 316LM									
		1.4539	X1NiCrMoCu 25-20-5	AISI 904L									
		1.4301	X5CrNi 18-10	AISI 304									
		1.4435	X2CrNiMo 18-14-3	AISI 316L									
K	Cast iron	0.6020	GG20	ASTM 30	100-200	40xd1	-	0.080	0.100	0.120	0.160	0.200	0.240
		0.6030	GG30	ASTM 40B									
		0.7040	GGG40	ASTM 60-40-18									
		0.7060	GGG60	ASTM 80-60-03									
N	Aluminium alloy wrought	3.2315	AlMgSi1	ASTM 6351	100-200	40xd1	-	0.060	0.100	0.120	0.160	0.180	0.200
		3.4365	AlZnMgCu1.5	ASTM 7075									
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	80-150	40xd1	-	0.060	0.080	0.100	0.120	0.150	0.180
		3.2381	GD-AlSi10Mg	UNS A03590									
	Copper	2.004	Cu-OF / CW008A	UNS C10100	40-80	2xd1	2xd1	0.065	0.080	0.110	0.130	0.160	0.190
		2.0065	Cu-ETP / CW004A	UNS C11000									
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	40-80	2xd1	2xd1	0.065	0.080	0.110	0.130	0.160	0.190
		2.036	CuZn40 CW509L	UNS C28000									
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	50-120	40xd1	-	0.100	0.130	0.160	0.180	0.230	0.250
		2.102	CuSn6	UNS C51900									
	Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	40-80	40xd1	-	0.065	0.080	0.110	0.130	0.160	0.190
		2.096	CuAl9Mn2	UNS C63200									
S ₁	Super alloys	2.4856		Inconel 625									
		2.4668		Inconel 718									
		2.4617	NiMo28	Hastelloy B-2									
		2.4665	NiCr22Fe18Mo	Hastelloy X									
S ₂	Titanium pure	3.7035	Gr.2	ASTM B348 / F67	25-50	3xd1	1xd1	0.030	0.040	0.055	0.070	0.080	0.100
		3.7065	Gr.4	ASTM B348 / F68									
S ₃	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	20-40	5xd1	1xd1	0.030	0.040	0.055	0.070	0.080	0.100
		9.9367	TiAl6Nb7	ASTM F1295									
H ₁	Hardened steel < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25	20-40	5xd1	2xd1	0.030	0.040	0.055	0.070	0.080	0.100
			CrCoMo28	ASTM F1537									
H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1	30-60	5xd1	1xd1	0.050	0.060	0.080	0.100	0.120	0.150
		1.2379	X153CrMoV12	AISI D2									